NOTES ON THE *VERBESINA HINTONIORUM* (ASTERACEAE) COMPLEX OF NUEVO LEON, MEXICO

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ABSTRACT

In light of new collections, the *Verbesina hintoniorum* complex is reevaluated. The largely gypsophilic grouping is treated as composed of four species: *V. hintoniorum, V. aramberrana, V. zaragozana,* and *V. tamaunevana*; only the latter is nongypsophilic. A new taxon, ***V. zaragozana*** var. ***intermedia***, is described from gypseous outcrops north of Galeana, Nuevo Leon. A map showing the distribution of these taxa is provided.

KEY WORDS: *Verbesina*, Asteraceae, Mexico, Nuevo Leon

Turner (1998) published a new species, *Verbesina tamaunuevana,* belonging to the *V. hintoniorum* B.L. Turner complex. In this he noted that at least a few sheets of what he earlier identified as *V. zaragozana* appeared to be introgressed individuals or populations of *V. hintoniorum.* Additionally, he provided a preliminary map showing their distributions.

Upon reading his paper the senior author sent him an email message that read as follows:

> Attached is a copy of a map I made with my interpretation of the *Verbesina* species- which differs a bit from yours....I consider the soft tomentose [taxon]to be *V. zaragozana* and the stiffer hairy one

V. hintoniorum- if so, they are readily distinguishable in the field and I have yet to see any overlapping in their distribution. Unless the hairiness/tomentoseness is due to the variation in altitude- tomentose at lower altitudes and hairy at higher ones. With this in mind, the northernmost group is *V. zaragozana* in the municipality of Rayones, ranging from the gypsum near the village of Santa Rosa in the north to that around the villages of Rayones in the south. Next, *V. hintoniorum* ranges throughout the gypsum in the municipality of Galeana, starting around the the village of Galeana, down into San Jose del Rio and west to the hills below Cerro Potosi. Continuing south you again run into *V. zaragozana* on the gypsum in the municipalities of Aramberri and Zaragoza. The habitat of *V. aramberrana* is on gypsum to the west of of the sierra that runs south along the Y- Dr. Arroyo highway, except for one plant [that] I found growing in the *V. zaragozana* area near the town of Zaragozana, the only time I have seen an overlap in distribution for these species. *Verbesina tamaunuevana* is the southernmost square and the only member of the group that grows on non-gypsum...

The junior author was so impressed with his colleague's field knowledge of the taxa concerned that he reevaluated the *V. hintoniorum* complex, which is the purpose of the present communication.

Verbesina zaragozana var. **intermedia** G.B. Hinton & B.L. Turner, **var. nov.**

Verbesinae zaragozanae B.L. Turner var. *zaragozanae* similis sed differt capitulis aliquantum minoribus, flosculis radii brevioribus, et foliis plerumque angustioribus ac minus dense tomentosis.

Resembling *Verbesina zaragozana* B.L. Turner typica, but the heads somewhat smaller with shorter ray florets, and the leaves mostly narrower and less densely tomentose.

TYPE: **MEXICO. NUEVO LEON: Mpio. Galeana**, above El Nogal, "Stunted pine forest," 0.7 m high, 2250 m, 11 May 1983, *Hinton et al. 18093* (TEX).

ADDITIONAL SPECIMENS EXAMINED: **MEXICO. NUEVO LEON. Mpio. Galeana**, Cienega del Toro to Santa Rosa, "Dominant species" on gypsum hillside, 1610 m, 3 Oct 1995, *Hinton et al. 25645* (TEX); 16.5 km N of Galeana along road to Rayones, 1100 m, 11 Nov. 1996, *Panero & Calzada 6876* (TEX). **Mpio Rayones,** 19 km from Galeana along road to Rayones, 1270 m, *Hinton et al. 20825* (TEX); along road from Galeana to Rayones, gypsum hillside, 1315 m, 24 Oct 1995, *Hinton et al. 25686* (TEX).

In the junior author's first account of *V. zaragozana* (Turner 1992) he noted that the species was partially sympatric with *V. hintoniorum* but did not appear to hybridize with it. His assertion that the two were sympatric was based upon material herein described as *V. z.* var. *intermedia.* Turner (1998), in his description of *V. tamanuevana*, noted "that at least a few collections of *V. hintoniorum*... have a vestiture" of *V. zaragozana*, but in other features resemble *V. hintoniorum,* hence the name var. *intermedia.* The variation concerned is perhaps derived from ancestral hybridization between *V. hintoniorum* and *V. zaragozana*, if not mere divergence from the latter.

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LITERATURE CITED

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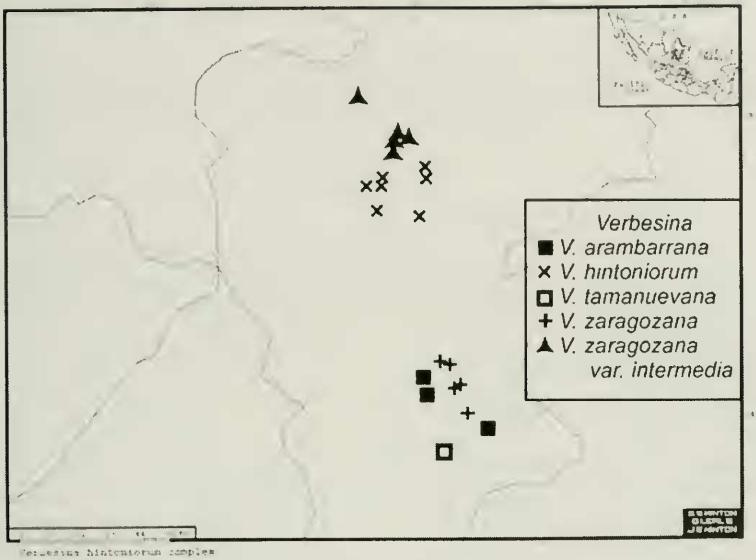

Fig. 1. Distribution of the *Verbesina hintoniorum* complex.